EXHIBIT D

IN THE UNITED STATES DISTRICT COURT

OF THE SOUTHERN DISTRICT OF WEST VIRGINIA

CHARLESTON DIVISION

IN RE: ETHICON, INC., PELVIC REPAIR SYSTEM PRODUCTS LIABILITY LITIGATION	)	Master File No. 2:12-MD-02327 MDL 2327
THIS DOCUMENT RELATES TO THE FOLLOWING CASES IN WAVE 1 OF MDL 200:		
MARGARET J. STUBBLEFIELD Plaintiff, vs. ETHICON, INC., ET AL. Defendant.	)	Civil Action No. 2:12-cv-00842

--- This is the Deposition of VLADIMIR IAKOVLEV, M.D., taken at The Westin Harbour Castle, 1 Harbour Square, Toronto, Ontario, on the 21st day of March, 2016.

REPORTED BY: TERRY WOOD, RPR, CSR

Donna Loustaunau)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00666)
)
Patricia Ruiz)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01021)
)
Betty Funderburke)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00957)
)
Elizabeth Blynn Wolfe)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01286)
)
Barbara Vignos-Ware, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00761)
)
Donna Massey, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-0880)
)
Patti Ann Phelps, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01171)
Dina Sanders Bennett)
v. Ethicon, Inc., et al.)
Civil Action No. 2;12-cv-00497)
)
Charlene Logan Taylor)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00376)
)
Cynthia Nix)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01278)
)
Barbara Kaiser)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00887)

Carol Jean Dimock)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00401)
)
Ana Ruebel)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00663)
)
Jackie Frye)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-1004)
)
Joan Adams)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01203)
)
Sharon Boggs, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00368)
)
Dina Destefano-Raston, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2;12-cv-01299)
)
Teresa Georgilakis, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00829)
)
Donna Hankins, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01011)
)
Nancy Hooper, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00493)
)
Krystal Teasley)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00500)
)
Margaret Stubblefield)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00842)
)
Cindy Smith)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01149)

Lois Hoy, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00876)
Constance Daino, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01145)
)
Janet Smith, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00861)
)
Harriet Beach)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00476)
)
Maria C. Stone, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00652)
)
Diane Kropf, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-01202)
)
Virginia White, et al.)
v. Ethicon, Inc., et al.)
Civil Action No.2:12-cv-00958)
)
Dee McBrayer, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00779)
)
Julie Wroble, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00883)
)
Sherry Fox, et al.)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00878)
)
Joyce Justus)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00956)
)
Kathleen Wolfe)
v. Ethicon, Inc., et al.)
Civil Action No. 2:12-cv-00337)

A P P E A R A N C E S:
FOR THE PLAINTIFF AND THE WITNESS:
ANDERSON LAW OFFICES, LLC
CHRISTOPHER J. ZIMMERMAN, ESQ.
1360 West 9th Street, Suite 215
Cleveland, Ohio 44113
Tel. 216.589.0256
Email: christopher@andersonlawoffices.net

FOR THE DEFENDANT:
BUTLER SNOW LLP LLC
M. ANDREW SNOWDEN, ESQ.
150 3rd Avenue South, Suite 1600
Nashville, TN 37201
Tel. 615.651.6760
Email: andy.snowden@butlersnow.com

INDEX OF WITNESSES

LIST OF EXHIBITS

--- Upon commencing at 8:10 p.m.

(WHEREUPON, the witness was duly affirmed.)

VLADIMIR IAKOVLEV, M.D.,
called as a witness herein,
having been first duly affirmed,
was examined and testified as follows:

EXAMINATION

BY MR. SNOWDEN:

Q. Good evening, Dr. Iakovlev.

A. Good evening.

Q. We are here to talk about the Margaret Stubblefield case; is that your understanding?

A. I do.

EXHIBIT NO. 1: Expert report

BY MR. SNOWDEN:

Q. I'm handing you what has been marked as Stubblefield one. Could you take a look and let me know if this is your complete case-specific expert report in this case.

A. Yes, it appears to be complete.

Q. How much time did you spend preparing your opinions in this case?

A. As for other cases, can give you an estimate only because I have not completed billing for this case. Ballpark would be probably just over 20 hours, not more than 30 hours.

Q. Okay. And I've been handed what I have now marked as Stubblefield 2. It's a flash drive.

EXHIBIT NO. 2: Flash drive

BY MR. SNOWDEN:

Q. Does this flash drive contain all of the case-specific materials you reviewed in this case with the exception, of course, of the specimen itself?

A. It should.

Q. And -- sorry, strike that.

When I look at your report in this case starting on page 11 and then through 13, it looks like you've headings in your clinico-pathologic correlation for erosion, pain and polypropylene degradation; is that right?

A. That's correct.

Q. In coming to an opinion regarding pain symptomatology, is your opinion necessarily dependent on the patient's complaints of pain?

MR. ZIMMERMAN: Objection. Answer if

Page 10

you can.
THE DEPONENT: Well pain has to be voiced by the patient, either without examination or pain on examination, but patient has to indicate somehow that she is feeling pain.
Otherwise there wouldn't be no -- well, I mean, you probably can -- if patient cannot speak, you probably see face reaction and emotions indicating that somebody is in pain. That's another way of -- but still, something is indicated by the patient that she feels pain.
BY MR. SNOWDEN:
Q. Okay. So implicit in your opinion then would be that the -- an assumption that the plaintiff's complaints are accurate; is that fair?
MR. ZIMMERMAN: Objection, form. Go ahead, answer it you can.
THE DEPONENT: I can only see what is in the records because I cannot take the history from the patient. I'm not urogynecologist, cannot examine to identify tenderness in some areas.
So I can be as accurate as the records are.

Page 11

BY MR. SNOWDEN:
Q. Okay. On page 2 of your expert report under urogynecologist history, you have entry for hysterectomy. Do you see that?
A. I do.
Q. Do you know what type of hysterectomy Ms. Stubblefield had?
A. I don't remember now, but if you show me the record I would be able to tell you.
Q. Does it have any bearing on your opinion whether she had a vaginal hysterectomy or abdomen hysterectomy?
A. Not really. It would matter for clinicians who is doing clinical differential diagnosis. I am not doing clinical differential diagnosis. I'm reliant on the clinicians who work up the patient and make a decision to excise the mesh.
EXHIBIT NO. 3: Operative note, 02/04/05
BY MR. SNOWDEN:
Q. I'm handing you what's marked as Exhibit Stubblefield 3. Do you recognize this to be a copy of the implant operative note from February 4, 2005?
A. Yes. February 4th, 2005, procedure

Page 12

anterior colporrhaphy with synthetic sling.
Q. In this case did Ms. Stubblefield undergo two procedures both on the anterior vaginal wall?
A. Yes.
Q. Okay. Do you know where, in relation to one another, an anterior colporrhaphy is performed versus the synthetic sling that was implanted on February 4, 2005?
A. Well colporrhaphy is along the sagittal plane. The sling is in the frontal plane, so they are, to a degree, perpendicular to each other.
Q. Do they overlap?
A. And colporrhaphy is more higher up, proximal where the sling is placed more closer to the enterocele.
Q. Do any portions of those procedures overlap?
A. They may but I would defer this to implanting surgeon.
Q. Okay. If we look in the body of the report, beginning -- it says description of operation, and if we go -- the fifth line down, it reads:

Page 13

"A transverse incision was made across the body of the cystocele and mucosa was retracted laterally."
Do you see that?
A. Yes, I do.
Q. "Sharp and blunt dissection was used to isolate and develop the underlying cystocele." Do you see that?
A. I do.
Q. Would that sort of dissection result in scarring on the interior vaginal wall?
A. After the -- if the mesh was not placed and if mucosa would be placed back and sutured, there would be some scar. The amount of scarring will be much smaller than what we see around the foreign object. Because if it heals with first intention, if there is no infection or any other complicating factors, there will be minimal scar, really thin, which will remodel and then some part of it will disappear with time.
But the difference with the wounds which do not heal with first intention is presence of the foreign objects in the wound, inflammation, or infection-related inflammation. All of this will delay

Page 14

a healing. That's why we call it secondary intention when the wound is open and then it heals up with granulation tissue and so forth.

So in this case, scarring which we see is actually related to the mesh, because there was foreign object in the wound and all that space had to be filled with granulation tissue.

Q. What -- and if we just continue reading it says:

"When this was accomplished, the sling was placed at the midurethral area.

The sling was composed of a piece of soft Prolene mesh 6 inches by 1/2 inch."

Do you see that?

A. I do.

Q. Is it your understanding that the surgeon had to cut a piece of Prolene soft mesh to get that shape?

A. That's my understanding. That's what I can see indirectly.

Q. And do you know how many pores, full pores across the width of that mesh there would be when it's cut into a half inch strip?

A. Let's have a look at the gross

Page 15

photograph, page 15 of my report.

So if you talk about larger pores, not the small pores which are in the weave pattern in the wool of the larger pores -- was that your question?

Q. Yeah, so if it's a rectangle, which you'd agree six inches by a half inch is a rectangle?

A. No, I understand that completely. So I can show you the larger pores and the smaller pores of the mesh which was used.

Q. Okay. And in the -- I'm talking about the half inch dimension so across the short dimension of the sling, perpendicular to it, how many pores across would that be?

A. So I can tell you exactly how many pores were in the sling. On page 15 there's a gross photograph, and you can see clearly the pores, larger pores and the smaller pores. Because there are smaller pores -- I'll use red marker so we can see.

So there are smaller pores which are formed by complex weave pattern, and then there will be larger pores which are formed by this complex weaving pattern. And you can actually follow and see how many large pores fit in the sling.

In this case, it was approximately three

Page 16

large pores fitting in the width of the sling.

Q. The specimen that you've drawn on the gross photo on page 15 was that the full width of the sling or had portion of it been excised prior to this?

A. My understanding is it's full width.

There's a scale underneath it and the scale is in centimeters. So we can see that the width is approximately seven, up to 7 millimeters. So this would indicate that the sling contracted to 7 millimeters from half an inch.

Q. And the basis of your opinion is the measurement of the tissue here on page 15?

A. The comparison of what width of the sling is during excision and what is the description, unless half inch description in the operative report is not accurate. But we all know that all meshes contract so there was some degree of contraction.

Q. In this case are you able to quantify the degree of contraction?

A. Well we can estimate it, so if it is half inch, which is approximately 1 or 11 millimeters I think over -- and if the width is

Page 17

approximately 7 millimeters -- so the contraction is in the ballpark of 35 percent of the width.

The width could have been reduced due to the stretching towards lateral directions during the surgery so half inch when it was cut out, but there could be some narrowing during the procedure when it was placed. And then that narrowing was further contracted and the dimension, the width further was reduced due to contraction of scar contraction.

Q. So would you agree that this mesh was placed under the midurethra under tension?

A. I don't know. We have to ask the implanting surgeon.

Q. And if we look at his note, it says, "The suspension sutures on the sling were tied with appropriate tension." Do you see that? Seven lines up from the bottom?

A. Yes, I do.

Q. Okay. So at least from this record we see that the surgeon is noting tension is being placed on this mesh?

A. That's what the record says.

Q. Okay. And you haven't reviewed his deposition transcript or any treater's deposition

Page 18

transcript in this case, correct?
A. No, I have not.
Q. Okay. Still looking at Exhibit 3 here, is it your understanding that the suspension sutures used in this case were passed suprapubically?
A. I'm not urogynecologist and I'm not doing this procedures, and this procedure is somewhat different that I have seen before. So I would have to defer all the specifics to the implanting surgeon.
Q. You are not going to offer any opinions in this case about the technique of implantation?
A. No.
Q. Are you going to offer any opinions in this case regarding whether the mesh was flat when implanted?
A. Well this portion of the mesh came out flat. It's not folded.
Q. Do you any opinions in this case regarding deformation of mesh?
A. What curled was the lateral ends, not the mid-portion.
So the middle portion was relatively flat, and then the lateral ends were somewhat

Page 19

distorted, curled or folded longitudinally along the length.
Q. Are you able to say to a reasonable degree of medical certainty whether that folding occurred in vivo or at the time of placement?
A. I cannot.
Q. And what portion -- if you can quantify for us, what portion of the mesh that was removed had curling?
A. Lateral ends.
Q. Okay.
A. And I described it as lateral ends.
Q. So if we are talking about the whole of the mesh, how much of the mesh -- that's what I'm trying to get at -- how much of the mesh was curled?
A. I can only estimate. Won't be exact number. Maybe 10 percent, maybe 20, somewhere within that ballpark.
Q. Was the curling that you saw in this mesh significant to your opinions in the case?
A. See, when the mesh was removed in 2009 for the specimen I received, this was a removal of the remnants of the mesh, because there was previous

Page 20

excision in 2007. So what I see is only what was in the remaining mesh or what I can describe.
Q. Didn't you know -- if you were done.
A. I'm just -- I have to see what was your question.
Q. My question is whether the curling that you saw in the mesh was significant to your opinion in the case.
A. Okay. I drifted away.
MR. ZIMMERMAN: It's a good thing it's here. It just might be a different question.
BY MR. SNOWDEN:
Q. I don't know whose question you are answering.
A. In this case, the formation of the mesh certainly doesn't help, but is not the main driving factor. The formation of the mesh is more of a larger contributing factor when there is a bulky structure or when there are multiple nerves involved in the, in the folded or curled mesh or when curling of the sling occurs under the urethra and when the area of pressure is reduced so it can cut deeper in the tissue. So this, these are examples when curling or deformation

Page 21

of folding play greater role in the complications.
In this specific case it's not as permanent, and it's not as significant.
Q. Okay. You mentioned two answers ago or one answer ago about the fact that there was a prior explant, so what you received in this case was a portion of the mesh that was implanted.
Are you able -- based on that, are you able to tell whether the mesh contracted as we just talked about a moment ago? Because I believe -- this a long wind up -- I believe when you previously said that you could look at this mesh and see how much it had contracted because it was the full mesh. Now I think you have seen that you've received a remnant and not the full mesh. So I'd like to revisit that.
A. Well, I did know that it is part of the mesh.
Q. Okay.
A. I was implying actually to the fact that there could be more curling in the segment which was excised previously. So I do see some curling, but it does not mean that that's the only amount of curling in the entire sling, because we don't know what was in the previous excision.

Page 22

Q. Are you able to get an accurate measurement of the sling as it would have been sitting in vivo based on the remnant of the sling you received as a gross specimen?

A. Well the sling was excised -- my understanding is the segment -- the sling was excised across its length. It's not that there was a strip excised along its length to reduce the width of the sling. So what we have missing is a length of the sling, but the width is preserved.

Q. Okay. Just so we are all on the same page with length and width here, when you say width, are you talking about the measurement that was initially 6 inches per the operative report?

A. 6 inches is length.

Q. And width we are talking about the half inch?

A. Half inch, yes.

Q. Okay. So which dimension are you able to look at the gross specimen and evaluate?

A. Width. We can evaluate both so -- but we cannot restore the full length because we have missing parts which were removed previously.

So if we measure this specific portion

Page 23

which is excised, we can estimate that the long section is about 6 and a half centimeters and then the two shorter segments, about a centimeter and then a half so seven and a half, eight, eight centimeters. So we are missing about four centimeters of six inches. Am I right?

Approximately, roughly because in inches just over two centimeters, 22 millimeters or so.

That would be an estimate. Again, we cannot restore length because we don't know exactly how much of it was removed unless we -- okay. If we go to pathology description in 2007, "received 4 small pieces of pink-red tissue and mesh with cautery artifact. Piece 1 measures 3," largest dimension is 3, and then largest dimension is 1.3 and then 1.7. And piece number 4 largest dimension is 4.5. It's not clearly what's the relationship between these pieces, but it could be as much of, as 7 centimeters of the mesh excised at that time or even more, up to 10 centimeters. So in this case full length could be 18, almost 18, 19 centimeters which is way beyond 6 inches.

Q. So if I understand your testimony, are you saying we are not sure the size of the sling when it was initially implanted?

Page 24

A. No, I'm just saying that we cannot restore the length of the sling in vivo and estimate what's difference of the sling which was in vivo comparing with the initial length when it was cut out from pristine mesh. But we can do approximately, well relatively good estimation of what was the width in vivo, for the width -- using the photograph on page 15, and the widest portion of the mesh is 7 millimeters.

Q. Okay. During that implantation procedure when the sling was placed, was there -- is it your understanding that there was additional mesh placed?

A. Yes, there was another patch of mesh placed for the anterior colporrhaphy.

Q. And do you know where that was placed in relation to the sling?

A. Well the anterior colporrhaphy is done along the anterior vaginal wall and, as we discussed earlier, it's an area somewhat perpendicular to the sling placement. I mean, the piece was larger piece but its longest dimension would be perpendicular to the sling.

Q. And do you know whether any of the portions of mesh removed from Ms. Stubblefield were the

Page 25

anterior -- strike that.

Do you know whether any of the portions of the mesh removed from Ms. Stubblefield were portions of the Gynemesh PS used for the cystocele repair?

A. Hmm, there were smaller pieces removed. So the long piece is consistent with the sling and the location where it was described -- what was the excision report?

MR. ZIMMERMAN: That's implant.

THE DEPONENT: Sorry. Excision report is here or my summary of the excision.

So they excised mesh remnants from the retropubic space, and they excised remnants of the vaginal wall mesh.

So some portions are actually from the vaginal wall mesh in 2009, and we can see by gross pictures that there on page 14, you can see that there is one long piece, which is more consistent with sling, and then there are smaller portions, two smaller or three smaller portions. But if you want me to go into the details of that excision, I would ask for the excision operative report.

BY MR. SNOWDEN:

Q. We going to get to that, but just

Page 26

not yet.
I ask, in this case you received it looks like several hundreds of pages of medical records for Ms. Stubblefield. Then those are contained on your flash drive.
Did you review all of those records in this case?
A. I review all records in all cases. Screened them through, identifying what is relevant.
Q. Okay. And when reviewing -- so did you request all of the medical records in this case?
A. I ask for all available records in all cases. I mean for me, the main -- the key records are implantation, and then reasons for explantation, and explantation. These are three key records for me. This is the minimum I need. But in most cases I receive more than that. And I go through them.
I mean, of course, if you have more records you can extract more information, and especially there are several excisions, you can see the reasons for each excision and you can see how much of that was removed at each excision.

Q. So in this case -- okay. Strike

Page 27

that.
What's the significance of the summary that you've included in your report for Ms. Stubblefield? And that runs from page 1 through 9.
A. So as I indicated in other cases, I do not do comprehensive differential diagnosis or comprehensive clinical differential diagnosis. What I do is provide a background of the specimen I receive. The implementation, the development of symptoms, the work up of the clinicians when they go through their clinical differential diagnosis and the decision to excise the mesh, so it provides a context for the specimen I examine. And the indication that the differential diagnosis was performed by the clinicians and the decision to excise the mesh was final decision after the clinical workup.
Q. And how did you determine in this case to include the eight or so -- or nine page -- let me get this right -- from page 1 to page 9 in this summary versus other cases where you have included one page of the key records you've just described, implant, reasons for explant, and the explant?
A. As I said, when I go through the records I don't know what I'm going to find further on

Page 28

and sometimes they are not in chronological order. Sometimes I end up first going through records in the middle and then jump to the front, then there are duplicate entries. It's all over the place.
I start including from page 1. I don't want to come back and re-review the records, so I include what I think is relevant, what I see is relevant, and then continue including it. And I don't know how much of that relevant information I will find in the pages which are ahead of me.
So I don't have specific target of how many pages or how many records. I need to just go through them and see if something is relevant, I include it and then continue on.
It also depends on the quality of PDF files. If I can copy information, I copy it. If I cannot copy, I have to provide my own summary, reading through it. Sometimes I cannot read it's so poor quality or handwriting.
Q. In this case you received a gross specimen, a tissue; is that correct?
A. That is correct.
Q. And it was in formalin?
A. That is correct.

Page 29

Q. All right. It was from the 2009 explant procedure, correct?
A. Correct, September 23, 2009.
Q. Did you process this specimen in the standard tissue process, using the standard tissue processing protocol you've used in all the cases?
A. The processing methodology is the same for all laboratories. All diagnostic laboratories use the same -- I mean, all histological labs use the same protocols, and they use the same machines and the same reagents. They are bought from suppliers and the machines are programmed and adjusted by the manufacturers.
Q. Okay. Is it your understanding that during the implant Prolene sutures were used to suspend the sling into place?
A. I don't see -- oh, I see one, at least one. There was a Prolene suture tied to the sling before placement.
Q. Okay. And then -- sorry, go ahead.
A. They were pulled. I don't see then description of how they were trimmed or cut completely, so it's not clear if they were left in body after that.
Q. Okay. On figure MS1 on page 14 of

Page 30

your report -- one back -- the suture you see there, is that consistent with Prolene?

A. Yes, but that suture is for excision, not for placement as far as -- if we -- again, if you give me the excision operative report, we can read what was used.

Q. Okay. Well, before we get there, let's look at -- we are still looking at the implant operative report. It mentions that the cystocele repair was then covered with a piece of the same mesh and sutured into place laterally using 3-0 Ethibond. Do you see that?

A. I do.

Q. Did you find any Ethibond in your specimen?

A. To my recollection, no.

Q. Okay.

A. Because if I see it, I usually include description and pictures.

Q. And the suture found on page 14 of your report, did you submit any of that suture for processing?

A. The part which is in smaller pieces in -- is in the sections.

Page 31

Q. Okay. Do you have a figure that shows that suture in the section?

A. Because it is thicker, much thicker than mesh fibers, it may or may not stay on the sections. Because usually what happens with thicker fibers, they pop out completely. So they just don't stay in the tissue. Because that Prolene suture is at least three times thicker than the mesh fibers. It's really firm when it's so thick and does not stay in the tissue.

Q. All right. Let's start going through your pictures. Figure MS3.

A. Which page?

Q. Page 16.

A. Yes.

Q. What significance, if any, do you attribute to this picture?

A. So this specific part of the mesh has folding and the scar tissue grew into the folds and between the folds. So the mesh became incorporated in this folded configuration. And we can see that most of the tissue around the mesh is scar tissue. There's a ring of normal fat tissue outside of the scar plate.

Now what is interesting, remember we

Page 32

were talking about contraction of the tissue. So this is the edge of the tissue, or of the specimen.

Q. You have drawn a red line.

A. Yes. And then if we follow scar, at least in this pore we can see the retraction of the scar plate or scar tissue retraction into the mesh. So that indentation is due to scar contraction. And it cannot be due to fixation of the tissue because we see the edge which is a different shape.

So that fat was pulled into the mesh pore because scar in this area.

Q. Which you have circled with red?

A. Yes, was contracting. So the contraction was pulling all tissue in, and that specific pore shows the mechanism how normal fat tissue becomes incorporated into the pores. It's because of the contraction of the scar within the mesh.

Q. And for the record, you have drawn next to the word "fat", you have drawn an arrow pointing where you say the mesh -- the tissue has contracted pulling the fat into the pore space.

A. So in this case we can see the extent of contraction at least in that specific pore, because we see the interface with normal tissue.

Page 33

Q. Okay. Can you look at this picture and tell us whether this, the pathology here is causing any symptoms in Ms. Stubblefield?

A. We cannot take one picture or single out one feature and say that that's what is causing all the symptoms. It's not like that. You have to consider the entire mesh together with all the tissue changes which are triggered by the mesh as one lesion which is causing the symptoms.

Q. Figure MS4 on page 17, what significance, if any, do you attribute to this photo?

A. And I will answer all questions I'm asked at trial for MS3 and I will expand that summary I just gave, so I would not be limited to a -- the summary which we just discussed regarding that photograph.

MS4 on page 17 shows another area of curled mesh. Now interestingly, this is embedded in a way where we can see more fat within the fold. So I think it's a cutting through cup-like shape of the mesh. So when we cut through this cup, the fat tissue, which is inside, became in the middle. So this would be -- this type of shape of the mesh, that's how we see fat tissue within or inside the mesh fold.

Page 34

Q. So you have drawn sort of oval shape on page 17.
A. It's somewhat similar to a spoon. That's the likely scenario how this appearance was generated in histological section.
Q. How do you rule out tissue processing as a cause of that?
A. Well, tissue processing cannot cause scarring. Tissue processing cannot cause fat to appear in this areas. I mean it's just present there. All of these tissues together, fats, scar and the mesh itself, are subject to all changes during tissue processing. And you can see that that shape is not flat mesh. It's either curled one layer, which is not as likely, or cup-shape mesh section at the edges of this cup or it's like a spoon-like shape.
Q. Are there any pores in this picture with fat tissue within them?
A. Yes, there are.
Q. How many?
A. Several, at least three. So in this specific case, the fat was retracted and slowly pushed its way into the pores. It's the same mechanism as in the previous picture. The mesh is placed in the

Page 35

body, all the spaces within the mesh are filled with blood and then there is granulation tissue and then when it matures, it contracts. And when it contracts it starts pulling fat tissue through the pores into the mesh. And in this case we have a tangential view of this process in page MS4 -- sorry, on page 17, picture MS4.
Q. And that process you just described, does that occur with any mesh?
A. You mean contraction of scar tissue and pulling of normal tissue into the pores?
Q. That the blood is there and then that brings the healing that you just described.
A. Yes. It's a nonspecific mechanism for healing. All empty spaces in the body first are filled with body fluids. Most commonly it's blood clot and then that blood clot is being replaced by granulation tissue or that's what we call organization, organizing blood clot.
Q. MS5 on page 18, what do we see here in this picture?
A. So this is a flat portion of the mesh. And it's embedded parallel to the plane of sectioning. You can see several mesh fibers, and I

Page 36

will use green marker which has sectioned parallel to their access or parallel to the plane of the mesh. So all of these fibers are sectioned parallel.
So this pattern is only possible when we section parallel to the mesh.
Q. Okay.
A. Then we section the mesh fibers along their long axis or along their length.
Q. And what was your reason for including this picture in your report?
A. Here you can see again the same phenomenon, scar plating, bridging fibrosis and then in some areas fat is being pulled into the pores.
Q. Okay. So in the areas here where fat is in the pores, is there any -- strike that.
The fat that you see in the pore spaces here, is it your testimony that was all pulled into the pore as a result of contraction?
A. I think that's the only viable mechanism to, and you can see it in other images that that's what is happening.
Q. Is there anything else abnormal in figure MS5?
A. Well, I can talk for a long time

Page 37

about this image. I will answer all questions I'm asked at the trial and expand this summary.
The main abnormality here is presence of the foreign body scar encapsulation, bridging fibrosis. We can see some of the foreign-body type reaction from this power. And we can see or I can demonstrate the difference between scar plate and surrounding normal fat tissue.
Q. Are you able to tie any complications to the figure MS5?
A. I'm not tying complications to specific or one single picture in any of these cases. What I'm doing, I'm describing all the changes which are occurring at the same time in relation to the mesh, all tissue changes; they work together. I mean there will be contribution, more contribution of one factor comparing to the other, but they will all be present at the same time. And we can observe them at the same time in the same specimen.
Q. Did you consult a neuropathologist in this case?
A. For this case, as for all other cases, I neither consulted nor needed to consult a neuropathologist to arrive to my opinions.

Page 38

Neuropathologists examine brain and spinal cord lesions and some larger peripheral nerves for neurodegenerative diseases. In this case, it's not a brain tissue. It's vaginal tissue. It's a foreign body implanted for urogynecological reasons. And the nerves I observed did not show degeneration or degenerative disease.

The location was abnormal. They were present in the mesh, and they were present in the scar tissue. That was abnormal, but the nerves themselves did not show much pathology.

Q. Okay. What pathology did they show, if they didn't show much?

A. So the main abnormality here on page 20 is presence of the nerves inside the mesh, embedded in the scar tissue which fills the mesh. That's the main abnormality. From this low power I cannot assess for degeneration, but it is not apparent from this view.

Q. Okay. Figure MS6 and MS7, are those similar portions of the tissue? One is in H&E and one is a -- is an s100; is that right?

A. It's possible. Likely.

Q. And if we look at where the mesh

Page 39

spaces are, they sort of line up together moving from MS6 to MS7; is that right?

A. That is correct.

Q. Okay. In this case you have two pictures depicting nerves; is that right?

A. Yes, there are two images.

Q. And I think we've just established they are from the same area?

A. Yes, they are likely from the same area.

Q. They are essentially like two slices of baloney on top of each other?

A. Yes, if you can put it this way.

Q. I was trying to think of a way. Anyway --

A. I used salami slices.

Q. Salami, baloney, whatever.

So if we look at MS6, which portion -- and you have arrows pointing in MS6, you have the word on lower panel the word "nerves" and then you have two arrows. Could you circle on the upper picture where -- in green pen which portion of that specimen has nerves? Just circle the nerves for me.

A. Again, this will be estimate based

Page 40

on H&E picture. It's not microscopic slide where I can zoom in and zoom out.

So my accuracy may be somewhat limited.

Q. Okay. So you have drawn green circles on the figure MS6.

A. I think that's pretty accurate comparing with s100.

Q. Okay.

A. I didn't look at this, so I just drew it.

Q. So the structures where the arrows hit on figure MS6 are sort of below where you've circled the nerves?

A. Well, I'm pointing with the arrows not specific point, but the location of the nerves. And you can see there are four nerves here.

Q. Okay.

A. And the arrows are just pointing in general direction of the nerves.

Q. Okay. Did you do any axonal staining in this case?

A. I did not need to do axonal staining, and I did not do it.

Page 41

Q. Did you analyze the specimen to look for axons under -- using s100 or H&E?

A. Sorry, it says --

--- DISCUSSION OFF THE RECORD ---

BY MR. SNOWDEN:

Q. Did you analyze the specimen to look for axons using s100 or H&E?

A. I don't need to examine axons.

Q. Did you do it?

A. That's why I did not do it, because I did not need to.

Q. Did you identify any nerve receptors in this case?

A. The answer will be the same. I did not need to identify nerve receptors.

Q. Did you count the nerve density in Ms. Stubblefield's specimen?

A. If you received synoptic report, I did. If you did not, then I wouldn't. I think I saw something about ...

Q. No synoptic report received is what you saw.

MR. ZIMMERMAN: Well, that's at least a clear answer.

Page 42

BY MR. SNOWDEN:
Q. So I will represent to you we did not receive a synoptic report in this case.
Would you agree that you didn't see any traumatic neuromas in this case?
A. I do. I do agree. Or traumatic neuroma-type of lesions within the mesh.
Q. Okay. None of those either?
A. None of those.
Q. The nerves found in MS6, are you able to tell on the H&E whether those are pain mediating nerves?
A. Well, all peripheral nerves or most of them are mixed, so they contain motor fibers and sensory fibers afferent and efferent.
Q. Are you able to look at the s100 or H&E of these nerves and determine that?
A. It's just general neuroanatomy that most of the nerves are mixed.
Q. Do you know where -- strike that. Do you know what these nerves are innervating?
A. Tissue within the anterior vaginal wall and the bladder in that area.
Q. Do you know how far their targets

Page 43

are away from this section?
A. Well, they will have targets along the course of the nerve, so they will be branching on its way. So there will be targets close by and then nerve continues on and the targets will be further down. So some of the targets are close by. Especially considering these are not large nerves, so they will branch out in relative proximity.
Q. If you look at the s100 and MS7, it looks like in the middle of the picture there are sort of two larger s100 positive staining structures. Do you see what I'm talking about?
A. I do.
Q. Just below that, is that a vessel?
A. Yes, there are vessels there. So it's normal anywhere in the body to form neurovascular bundles. There is usually one nerve and arteries or arterials and veins. It's how they run parallel to each other. Certain point they deviate and they run alone.
Q. Are you able to tell whether these are autonomic nerves?
A. No, they can be either motor or autonomic depending on their location. If we are

Page 44

getting close to the vaginal mucosa, they will be somatic or likelihood of them being somatic will be higher. If you are getting deeper in the bladder wall, there won't be any somatic nerves. All of them will be autonomic.
Q. Do you know how close this slide is from the bladder wall or the mucosa, vaginal mucosa?
A. Well see, I did not see any portions of the bladder wall in this specimen.
Q. Do you see any mucosa -- vaginal mucosa in this specimen?
A. No.
Q. Is it fair to say you don't have a marker above or below, and above meaning bladder and below meaning vaginal mucosa, to orient where the MS7 came from?
A. No. Also some pieces also came from the retropubic space.
Q. And what would be the significance if the portion was from the retropubic space?
A. See, if it's retropubic space, likelihood of those being somatic is higher than autonomic, because autonomic nerves running from below to the bladder. The innervation pattern is from

Page 45

lateral and below and going into the bladder. If you are going above the bladder, all autonomic or most of the autonomic innervation is already ended in the bladder.
Q. The nerves or the s100 positive staining structures in the top left of the picture, are there vessels around those as well?
A. Yes. I think it might be the same neurovascular bundle just diving in and diving out. There might be two nerves or it might be -- well, most likely there are two nerves running parallel.
Q. In either of these figures, MS6 or MS7, is there any inflammation infiltrating the nerves?
A. I cannot appreciate it from this power. I don't see it from this power, but it does not mean that it's not there.
Q. Do you recall making that finding one way or the other when you were looking at these under microscope?
A. No. Usually I don't see inflammation in the nerves. As I said, the main abnormality in the nerves is their location, not something within the nerves. Sometimes I see degenerative of the nerves and sometimes I see there

Page 46

is distortion and separation within the scar tissue.
Q. MS8, if you could turn there, what does this show?
A. This is an H&E slide. It shows several mesh fibers, a cluster of mesh fibers. And that cluster is on the left and close to the lower border, and then the upper right corner is filled with scar tissue and there is a cluster of chronic lymphocytic inflammation in the area.
Q. What significance, if any, would you attribute to this finding?
A. It shows increased inflammation. This would be abnormal to have in normal vaginal tissue. Increases burden of inflammation within the mesh.
Q. Overall in Ms. Stubblefield's specimen, how would you rate the chronic inflammatory infiltrate?
A. I cannot grade it using just one spot. How I do it, I use objective times four and I count number of fossa like this.
Q. Did you do that in this case?
A. If I did synoptic report, I did but we determined ...

Page 47

Q. Okay.
A. That why I did not do it.
Q. Okay. So in some cases you have done that, but not in this one?
A. Well, I do not require those type of measurements to formulate my opinions. As I said, any degree of inflammation is abnormal -- well, that degree of inflammation is abnormal, and I'm not basing it on the number of clusters of these chronic inflammatory cells but their amount, their clustering. So this is an abnormal finding already without grading.
Q. If you see one cluster like this in MS8, is that significant to your opinion?
A. Everything is significant to my opinion. All of this is abnormal. I'm describing the abnormalities. So as in any pathological specimen, when we examine, we describe what is abnormal, what is different with the tissue which is expected to be seen there or with our knowledge of normal histology in the area.
Q. What clinical symptoms do you attribute to the presence of chronic inflammation in this specimen? And I don't mean just this picture. I mean overall in Ms. Stubblefield's specimen.

Page 48

A. So I will not single out one specimen's pathological feature or histological feature. They all occur in the same specimen together. Some of them have greater roles; some of them have lesser role. But overall we cannot separate them, because they are all incurring in response to mesh. And when they all occur together, they cause symptoms.
Q. Figure MS9, what are you showing here?
A. This is a different type of inflammation. This is, again, an H&E stain slide with cluster of mesh fibers. And in the middle of this image, there is foreign-body type inflammation reacting to the mesh. And the corners, upper right corner and the lower left corner is filled with scar tissue. So that scar tissue is part of the scar plate.
Q. Okay. And -- sorry, are you finished?
A. And you can also see degradation bark in some of the fibers.
Q. In the upper right portion of the picture, the tissue closest to or abutting the mesh fiber, are there any giant cells there?
A. No.

Page 49

Q. And in the space, the -- well, the fiber is still present there, correct?
A. That is correct.
Q. And there's degradation bark along that area where there are no giant cells; is that correct?
A. That is correct.
Q. Are there giant cells on the lower left portion of the tissue in the lower left corner where it's abutting the tissue -- the tissue abuts the mesh?
A. Do you mean other macrophages as part of foreign body reaction? Giant cells -- macrophages don't always form giant cells. So foreign bodies formed by macrophages, but they are not always giant cells.
I see few cells, few macrophages but they amount is not the same as what is occurring in the middle of the image.
Q. Okay. Is the presence of these foreign body giant cells in the middle of this figure, significant to your opinion?
A. As I said, everything is significant. Everything is abnormal. Presence of

Page 50

foreign body reaction of any degree is abnormal in the tissue. Normally there is no foreign body reaction in tissues. And this type of inflammation contributes to all the changes which are triggered by the mesh together with a chronic inflammation we discussed earlier, scar plate formation and other features we discussed earlier. All of that works together.

Q. And in Ms. Stubblefield's case, does the presence of foreign body inflammation indicate that the mesh is not biocompatible?

A. It depends on how we determine or how we use the term "biocompatible." If we want to use the term "biocompatibility" to describe a device or a material which would be completely inert, then I would say the mesh is not inert. The mesh triggers foreign body reaction.

Q. Are you going to be offering an opinion in this case regarding whether Ms. Stubblefield's mesh is biocompatible?

A. Hmm, I don't think I used that word in either my general report or in this case-specific report.

Q. Okay. So is that a no?

A. Just don't describe it. What I can

Page 51

say is that it's not inert.

Q. And will you be telling the ladies and gentleman of the jury about the principles of biocompatibility and whether Ms. Stubblefield's mesh was biocompatible?

A. Again, I did not provide any opinions regarding biocompatibility in either my general report or case-specific report. If I am asked regarding this type of questioning, I think the best wording would be as inertness, because biocompatible or biocompatibility terminology can be used as long as we agree what it means in -- for different people, it may mean different. When we see inert and not inert, that implies that either there is reaction against it or there is no reaction. And in this case we do know that there is reaction. So it's not inert. It triggers a reaction, foreign-body response, foreign-body type inflammatory reaction, it triggers scar encapsulation. All of that is a response to an object, therefore, it's not inert.

Q. Figure MS10, if you can turn your attention there, what does this picture show?

A. So now this image shows another area of an H&E stain slide, and this area shows

Page 52

actually formation of giant cells. So when the macrophages cannot destroy an object, they merge together to form these larger cells or giant cells, multinucleated cells in an attempt to phagocytose or swallow the body, the foreign body.

The degree of foreign body reaction here is greater than what we saw in the previous image. There is also scaring or bridging fibrosis just outside of the mesh fibers and in between the mesh fibers. So all of the tissue which is in this image is abnormal. There is a presence of foreign body. There's scar bridging. There is scar plate formation. And then there is foreign-body type reaction with a number of larger giant cells.

Q. The foreign-body type inflammation that you show in MS9 and MS10 is that representative of a degree of foreign body inflammation throughout the specimen?

A. I'm not sure what you mean. I don't understand the question.

Q. So --

A. It's representative of the area I took photograph. It's exact copy what was in there.

Q. Right. Is it representative of the

Page 53

foreign body reaction found throughout the entire specimen?

A. I'm not sure if it can be done in one image. How can you represent the entire specimen using one image? One image just represents the area.

Q. All right. Well, you have two images here. Are the two images representative, when taken together, of the entirety of the specimen with regard to foreign-body type inflammation?

A. No, they cannot represent entire specimen because they are just two images of two specific areas.

Q. Are there areas with less foreign body inflammation in the specimen?

A. Well, even in the image MS9 on page 22 we have one corner which has no foreign body reaction. And then the middle part has quite extensive collection of macrophages. So what happens, foreign body responds, in most cases, does not envelope or does not form a sheath around the mesh fibers. There's some skip areas or patchy clusters of foreign body macrophages or foreign-body type reaction. That's how it is.

In some areas, the foreign body response

Page 54

is so permanent that it forms this confluent band along the mesh fibers. Actually it becomes almost bridging and in this case it is bridging. I mean, if we look at MS10, the spacing between these fibers -- we can mark them with star --

Q. Green star.

A. Green star. That space is actually bridged by the foreign body reaction, so here we can call it as bridging inflammation.

Q. Okay. Is that present throughout the entirety of the specimen?

A. No, it's not. Again, some fossa are like this; some fossa have less.

Q. What is the significance, if any, of the bridging of the inflammation?

A. Just shows the extent of inflammation that it's, it's so extensive in that specific area that it bridges. The volume of inflammation -- the more inflammation, the more damage from inflammation, the more inflammatory mediators in there, the more negative effects of the inflammation.

-- RECESS AT 9:39 --

-- RESUMING AT 9:51 --

Page 55

BY MR. SNOWDEN:

Q. All right. I'm going to hand you what has been marked as Stubblefield four.

EXHIBIT NO. 4: Surgical Pathology Final Report, reported 9/28/2009

MR. ZIMMERMAN: Thank you.

BY MR. SNOWDEN:

Q. If you look at the right-hand of this surgical pathology report, see the collection date of 9/23/2009?

A. I do.

Q. Does that correspond with the specimen you received in this case?

A. Yes, it does.

Q. And if we look down under the diagnosis it says, "Mesh excision synthetic material consistent with surgical mesh (gross diagnosis only)." Do you see that?

A. I do.

Q. Then there is a gross description toward the bottom of the page that then continues on to page 2. Do you see that?

A. I do.

Q. Okay. And anywhere in the gross

Page 56

description does the pathologist at Vanderbilt University assess deformation in the mesh specimen?

A. There's no assessment for deformation in the gross description.

Q. Okay. And the gross only here means that the pathology department at Vanderbilt did not submit the specimen for microscopic examination; is that right?

A. That is correct.

Q. Okay. We can put that aside for now. Is it your understanding in this case that Ms. Stubblefield underwent four revision surgeries?

A. At least four from what I can see in the summary.

Q. Okay. And you received a specimen from one of these, only one of these surgeries; is that correct?

A. That is correct.

Q. Have you received any other specimens taken from Ms. Stubblefield other than from the September 23rd, 2009, surgery?

A. No.

Q. And we talked about this briefly earlier, but you had mentioned that a portion of the

Page 57

sling had been removed prior to September 23rd, 2009; is that right?

A. That is correct.

Q. I want to hand you what I'm marking as Stubblefield 5.

EXHIBIT NO. 5: Operative report 2007/01/04

MR. ZIMMERMAN: Thank you.

BY MR. SNOWDEN:

Q. And do you recognize this to be the operative note from Ms. Stubblefield's surgery on January 4, 2007?

A. Yes.

Q. Before we get too far into this, let me ask you. Regarding your clinicopathological correlation, do you have an opinion in this case regarding the cause of Ms. Stubblefield's erosion?

A. Well, the erosion was caused by the foreign body. So we -- as we discussed with other specimens or other plaintiffs, because mesh cannot be remodeled and cannot be modified, altered by the body, it can erode. So it damages the tissue when it migrates or prevents it from healing when there is exposure of the mesh through the mucosa. Cannot be

Page 58

reabsorbed completely to seal off the area. So if there is foreign object in the wound, it will not heal.

So this is the main feature, nature of the mesh as foreign body. That's why it erodes. That's why it becomes a chronically eroded wound.

There is also whole set of other features in relation to the mesh, but those feature, features are of the tissue reaction. The scarring in the area and inflammation, they all work together with the mesh so they also have -- or they also contribute to all the changes.

Q. And are you able to identify which of those factors was the cause of Ms. Stubblefield's erosions in this case?

A. As I said, because they all occur at the same time, and they all occur due to the mesh placement, we cannot separate one single feature and then link it to one specific symptom. It's impossible. Everything occurs at the same time. They're all related to the mesh and ...

Q. In your erosion section on page 11 of your report, you have listed as one of the several factors in the mechanisms of erosion, you list infection. Do you see that? In your report?

Page 59

A. This would be --

Q. Page 11.

A. Page 11.

Q. And it's just before the last paragraph on the page.

A. Yes, I do.

Q. Do you have an opinion in this case regarding whether Ms. Stubblefield had an infected mesh prior to -- strike that.

Do you have an opinion in this case regarding whether Ms. Stubblefield had an infected mesh that led to an erosion?

A. So regarding infection, an infection may not be present before the erosion or trigger the erosion. However, once the mesh is exposed or there is a breach of mucosal surface, the wound of mesh exposure becomes infected. And then that triggers acute inflammation, and then there is more damage of the tissue. Because it is inflamed and infected, the area cannot heal, so that becomes a contributing factor for continuing erosion. So it -- or expansion of the erosion.

Q. Okay. In this case, you didn't have any mucosa in the specimen; is that right?

Page 60

A. No, I did not.

Q. In this case you didn't see any acute inflammation in the specimen?

A. No, I did not.

Q. In this case you didn't see any signs of infection in the specimen?

A. In my half what I examined, I did not.

Q. On page 13 of your report under the polypropylene degradation section, you have there, "The degraded polypropylene formed a continuous brittle sheath around the mesh. Filaments contributing to mesh stiffening." Do you see that?

A. I do.

Q. Did you do any mechanical testing of the mesh?

A. I did not perform any destructive testing, either analytical chemistry or mechanical testing, because this would not give me opportunity to do histology. I used histological methods to observe features under the microscope, and then I can judge by the histological appearance or appearance of the polypropylene in this case under the microscope regarding its properties. And if something shatters or

Page 61

cracks, it indicates its brittleness, because the nondegraded core of the fibers does not crack while the degraded bark cracks.

Therefore, it indicates that there is a change of physical properties which is due to degradation.

Q. The next sentence you have, "Extensive cracking can also provide cavities to harbor bacteria as is well known in microporous meshes." Did you identify any bacteria in the cracking of the degradation layer in this case?

A. As specimens, I do not search for individual bacteria. It's difficult to do in histological sections. I can identify bacteria when they are in colonies. Then it is more reliable.

Q. In the second to last paragraph you have:

"Degradation of a polymer also indicates its breakdown into smaller molecules. In cases of implanted materials, the products of degradation are released into the tissue adding to the complex pathological interactions between the mesh and the human body."

Page 62

Do you see that?
A. I do.
Q. Did you identify any of those products of degradation released into the tissue in this case?
A. We cannot because that would be destructive testing. And I don't know if there is any test to measure it in the tissue. All of the publications I have seen, they were measuring products of degradation in vitro when there was degradation of the polypropylene outside of the body.
Q. Okay. On pages 32 -- strike that.
Pages 26 of your report through page 32, is -- looks like it contains opinions regarding degradation layer?
A. It does. I mean these pages, they describe the same features I described in the January report and other specimens as well.
Q. Okay. And as I understand it, the -- is it your opinion that in MS13(a), for example, that the degradation bark takes up histologic dyes?
A. That is correct.
Q. To give it its purple color; is that right?

Page 63

A. That is correct.
Q. And if I understand your -- strike that.
As I understand it, your opinion is that the reason that it uptakes the dye is that the outer layer is oxidized?
A. Well, it takes up the dye because it is not solid any more. So there is some micro or nanopores and nanocavities which can absorb the dye. That's why it takes up the dye.
Q. Okay. You've previously testified that you were -- you undertook an experiment to intentionally oxidize polypropylene and see whether it takes up histologic stain. Do you recall that?
A. You mean from the general opinions?
Q. Do you recall that?
A. The discussion? Or the experiment?
Q. The experiment.
A. I do recall.
Q. Okay. Have you concluded that experiment yet?
A. So now at the end of last patient we are switching back to general opinions?
MR. ZIMMERMAN: Are you asking general

Page 64

opinions?
BY MR. SNOWDEN:
Q. I'm asking if he has a new opinion regarding testing that has been ongoing in the case, which I think I'm entitled to ask.
MR. ZIMMERMAN: Do you have a question about Ms. Stubblefield? Because it's a case-specific deposition that we're taking today.
If you are asking for an update on the opinions that were elicited during his general deposition, it's outside of the scope of this deposition.
BY MR. SNOWDEN:
Q. I don't agree. It's part -- okay. Let me ask it this way.
Dr. Iakovlev, for any of the cases in Wave 1 have you performed -- have you concluded your degradation -- strike that.
For Ms. Stubblefield or any other cases involving Wave 1 plaintiffs, have you completed your experiment where you were attempting to intentionally oxidize polypropylene to see if it would take up histologic dyes?
A. That experiment was not required to

Page 65

detect degradation layer for any of these cases. It's done for completely different purpose.
Q. Have you completed it?
A. No, I have not completed it yet.
Q. Do you plan to offer any opinions at trial regarding that experiment?
A. For Ms. Stubblefield?
Q. Yeah, for Ms. Stubblefield.
A. No. For Ms. Stubblefield I will not use it. As I said, it's not required. And it's not needed. I'll do it for different purpose. That experiment is mainly to show that the model of in vitro degradation which can simulate in vivo degradation is usable. It's more of a testing of the model rather than confirming the degradation.
Q. Dr. Iakovlev, on page 13 of your report you have, under the polypropylene degradation section, a paragraph that begins, "In Ms. Stubblefield's case, the mesh also fragmented in the body." Do you see that?
A. I do.
Q. What's your opinion regarding when the mesh fragmented within her body?
A. So if we go back to the

Page 66

intermediate excision, which was in 2007, one of descriptions which was given in January, 2007, was this material, because of its loose weave, fragmented easily. So there is description of fragmentation during that excision date which predated the excision of the specimen I received.

Now, if we go back to the images beginning with MS17(a), there's a series of images which shows fragments of polypropylene. Some of these fragments are irregular, and they contain blue fiber -- blue granules within or inside the fragments, and some of the fragments are rectangular. And they correlate with scales of the degradation bark.

So what happened during the excision in 2007, some of the chips or small fragments of the mesh were cut off. And when the mesh was cut off, some of the bark fragments peeled off and formed this scale-type fragments in the tissue.

So we have a combination of portions of the mesh fibers which were cut off from the nondegraded core. For example, in picture MS17(a) on page 33, as circled with green marker, that specific fragment was from the nondegraded core. And it's together with the, in the same sort of cluster of fragments with the

Page 67

scales of the bark.

So what happened, both the degraded bark was fragmented during the excision and the nondegraded core was also fragmented to a degree, with scissors or with other tools. And we see the combination of this too.

And if we flip the page to page 34, we can see the appearance of these fragments in polarized light. For example, the fragment which has distinct rectangular shape -- I'm circling it with blue marker -- also shows transverse cracks. So this is typical for degradation bark, where the particle of nondegraded core does not show -- and I also circled it with blue marker but it's difficult to see because it's dark background. It does not have any cracking. It's solid, because it's not degraded -- at least it's not degraded in the middle.

What's interesting if we flip the page to page 35, image MS18(a) shows another two or three particles of the nondegraded core which were cut off the mesh during previous excision. And now we can see actually that these fragments of the nondegraded core were left in the body at that time formed their own degradation bark.

Page 68

And it's clear -- I will use green marker and outline the edges of the degradation bark which formed on the surface of these fragments. And the degradation bark is also birefringent on next page 36, so it behaves exactly the same way as degradation bark which is formed on intact fibers or nonfragmented fibers.

And if we check, the excision in 2007 occurred approximately two years after implementation. So by two years, the bark was of sufficient thickness to be visible and to peel off the nondegraded core. Then when the nondegraded core fragments were left in 2007 by the excision I received specimen of, which was another two years after the intermediate excision, these fragments which I circled on page 35, they were exposed to the body environment long enough to form their own degradation bark.

Q. The fragments in MS18(a), how large are those?

A. Well, I don't know if it's a whole fragment here or just like a tip of the iceberg. It's hard to say. What I can say is what the cross section or estimate the cross section, longest diameter what we see in this section.

Page 69

I would estimate it is approximately 50-microns long. Maybe less, maybe 30, somewhere between 30 and 50.

Q. And how wide is it?

A. 15 microns. Again, it's rough estimate.

So overall when there is a cluster of these fragments, it's a combination of scales of the bark and fragments of nondegraded core, which was nondegraded in 2007. By 2009 there is a degradation bark in each of those fragments.

Q. And what's the significance, if any, of this to your opinion?

A. Well, it's all just consistent with previously-described findings regarding degradation bark. It's fragile. It cracks. Cracks and then forms this scale-like particles which were deposited in the tissue. Also it forms on any polypropylene of any shape, either cylindrical shape of intact fibers or fibers like this depicted in MS18(a).

Q. And what's your basis for the opinion that portions of what we see in these figures are fragments of bark rather than pieces of mesh that are dislodged during cutting at the excision procedure?

Page 70

A. Shape. Shape and absence of -- or relative absence of the blue granules, because when material degrades, blue granules degrade as well. So if we see rectangular shape, which represents cross section of a scale, and relative lack of the blue granule, it means that the material was degraded before, formed degradation bark, and then was fragmented further and was left in the body.

Q. How do you rule out the absence, that the absence of blue granules was due to the fact that Prolene soft has both blue and clear filaments?

A. Some of it can be because of the clear filaments. Some of it, you -- we can actually see some residual blue granules in some of the fragments. It depends on what fiber they are coming from. If they are coming from clear fibers, there was no blue granules at the beginning.

For example, on page 37, there's few scales of the bark forming this curvilinear scales, and we see the blue granules within them. So in that specific area, a blue fiber was crushed, and then the bark peeled off and left these scales in the area.

Q. And what's your basis for the opinion that this all occurred in the 2007 surgery?

Page 71

A. Just analysis of the records. This occurred sometime before the excision in 2009. So there was an event sometime between implantation and excision in 2009 which crushed the fibers to produce first of all scales of bark and, at the same time, fragment the nondegraded core. And the only event I can see in the records is excision in 2007.

Q. Did you consider the fact that the mesh is cut during placement?

A. But during the placement there is no degradation layer. Wouldn't produce this perfectly rectangular scales or cross sections of the scales.

I think we had one case -- I don't know if it was you during the deposition -- where there were some fragments which were triangular and some irregular shape. So when the fragment is triangular shape, it can be coming -- or can be embedded in the tissue during implantation. If it's rectilinear and if it's consistent with the bark, the only way to produce this is to leave the mesh in the body long enough so the bark is formed and then crush the fibers, produce those scales, and leave it in the body again for some time so there will be vital reaction around it.

Page 72

Q. Have you ever done a controlled experiment where you take a pristine Prolene soft mesh and cut it and see what, if any, particles come off the mesh?

A. I'm not sure what would be the purpose of this experiment. That -- does it imply that it is impossible to make smaller fragments? Sometimes I cut the mesh fibers and I can see what fragments are left or the crushed ends of the mesh.

I examined the meshes. When the pristine mesh is cut and I see the edges, and I can see clearly, especially in the places where short segment of the fiber is still attached, can see it's kind of loose. If it's outside of the body, if it's very small fragment, it will just snap off and become dislodged.

So I've seen larger portions of the mesh fibers still attached to the mesh after the cutting.

Q. And my question was whether you have done a controlled experiment where you take a pristine Prolene soft mesh, cut it, and determine what particles, if any, come off the mesh.

A. So my answer would be I did examine meshes after cutting them with scissors, and I did see some larger portions of the fibers left on the mesh.

Page 73

They were loose. They were loosely attached so they fall out easily because they are not -- you need a long fiber which is being held in the weave pattern of the mesh.

Q. Did you then take those pieces and process them through tissue processing to analyze their shape and the presence of degradation bark?

A. Well, I can see the shape in the microscope because when I examined it, I examine it in the microscope without embedding.

Q. And have you ever -- first off, do you know what tool the implanting surgeon used to cut the mesh in this case?

A. We can check with the excision record from 2007.

MR. ZIMMERMAN: Exhibit 3. I'm sorry.

THE DEPONENT: Is it 2007?

MR. ZIMMERMAN: Five.

THE DEPONENT: So where is 2007? Here.

BY MR. SNOWDEN:

Q. I'm sorry. My first question is: Do you know what tool the surgeon who implanted the mesh to be Exhibit 3, what tool he used to form the mesh into a six inch by half inch sling?

Page 74

A. Scissors. Does not say exactly which tool, but most likely scissors.
Q. So sitting here today, you won't know whether you have replicated the same type of cutting in your lab as the surgeon implanting the mesh used in forming the sling in this case?
A. But I'm not using this experiment. I do not need this experiment to formulate my opinions. I arrive to my opinions examining the specimen. The effect of what happened. I'm not -- I don't need an experiment to actually determine that these are fragments of polypropylene. Some of it is completely degraded; some of it is partially still containing nondegraded core. I can see it in the images, and I saw it in the specimen itself.
Q. And that wasn't my question. My question was: Sitting here today, you do not know whether you employed the same type of cutting of a mesh in your lab as the implanting physician used when he formed the Prolene soft into a sling in this case?
A. As I said, I did not need this experiment. I did not perform it.
Q. Okay.
A. Because I'm describing the effect

Page 75

of it, not specifically how it was formed. I can see clearly that these are particles of polypropylene.
Q. And then you would agree that you have not performed an experiment where you use the same cutting method on a pristine Prolene soft mesh to determine the shape or presence of any particles that would come off of that mesh?
A. I don't understand how would that experience -- experiment contribute to the opinions. We already observed that there are particles in the tissue.
Q. And that's not my question, Doctor. Would you agree that you have not performed an experiment where you use the same cutting method on a pristine Prolene soft mesh to determine the shape or presence of any particles that would come off the mesh as a result?
A. I did not need that experiment and I did not perform it.
Q. And regarding the January 4th, 2007, procedure where mesh was removed, do you know what tool was used to cut the mesh?
A. All I can say, whatever tool was used, the mesh was fragmented under the use of that

Page 76

tool.
Q. And motion to strike that answer as nonresponsive.
Regarding the January 4th, 2007, procedure, do you know what tool was used to cut the mesh?
A. The record describes that the material was fragmented easily, but it does not say exactly what tool was used at that time. Whatever tool was used, it fragmented the mesh.
Q. So regarding the January 4th, 2007, procedure where mesh was removed, you do not know whether you have performed an experiment in your lab where you have cut a pristine mesh using the same tool as that used to cut the mesh in this procedure to determine the shape or presence of any particles; is that correct?
MR. ZIMMERMAN: Objection.
THE DEPONENT: It's not what I do. I don't do specific experiments as for any other specimens. What I do, I describe the histological feature, what is abnormal in the tissue. In this case, I described this particle and it's unequivocal. There are particles of the polypropylene. Some of them are

Page 77

rectangular, describing -- or consistent with scales, and some of them are irregular, larger particles.
So my opinions are based on the examination and analysis of the specimen itself, not on additional experimentation.
BY MR. SNOWDEN:
Q. Doctor with -- strike that.
Sitting here today, you would not be able to tell the ladies and gentlemen of the jury whether or not you performed a control experiment using the same method of cutting a pristine mesh as that used by the doctor who cut the mesh in the January 4th, 2007, procedure, correct?
MR. ZIMMERMAN: Objection. Answer if you can.
THE DEPONENT: So the answer would be that, as for all diagnostic specimens, we do not require a control. We assess the specimens for the difference what is expected in the tissue, either normal tissue or altered to a degree.
So in this case, what I can use as a description of what is expected would be several hundred of the specimens I examined of explanted measures. This is the first time I see such an extent

Page 78

of scales of the bark in the tissue. It's not -- it was not expected. This wasn't -- somewhat unexpected finding, and it's completely different from other specimens. And we saw the particles of the measure in the tissue only in the occasional cases.

BY MR. SNOWDEN:

Q. And in all due respect, I'm not sure whose question you are answering.

Doctor, would you be able to tell the ladies and gentlemen of the jury whether or not you performed a control experiment using the same method of cutting a pristine mesh as used by the doctor who cut the mesh in the January 4th, 2007, procedure?

A. I did not need to do an experiment, separate experiment, and that's not what we do as pathologists to do experiment every time we see some features under the microscope. We ...

Q. And I'm not asking you whether you needed to do it. I'm asking you whether you did such a controlled experiment.

A. That's why I did not do it.

Q. Okay. So we agree you didn't do it?

A. I did not require and I did not do

Page 79

it.

Q. You have mentioned several times a statement from the January 4th, 2007, operative note mentioning this material, because of its loose weave, fragmented easily. Do you know what this -- do you know if this doctor was deposed in this case?

A. No.

Q. If he was deposed, do you have any idea what he said?

A. No.

Q. How do you -- what's the basis for your belief that what he is describing there are the particles you see in your specimen?

A. This is first time, after more than 200 specimens, I see such a description by the surgeon that the material fragmented easily. This is also the first time I see a number of particles in such an extent.

So to a reasonable degree of medical probabilities, the likelihood of these two facts are not related is very low. So to a reasonable degree of medical probability, I can state that there is very -- very high likelihood that the description of the surgeon of fragmented mesh correlates with my

Page 80

observation of multiple particles in the tissue, because, as I said, the finding is not common. It's not commonly seen. And the description in the records is not common as well.

And it correlates logically and pathophysiologically and it correlates also with my understanding of the behavior of polypropylene in the body and formation of the bark and behavior of the bark.

Q. Why do you -- well first off, did the physician here during this surgery mention particles coming off the mesh?

A. Fragmented. Fragments.

Q. So is that the same as particle?

A. Well fragment is a particle.

Q. Would a one centimeter portion of the mesh also be a fragment?

A. I don't think the surgeon would describe one centimeter as a fragment and fragmented easily.

Q. Why did you mention loose weave in relation to fragments? What does that have to -- sorry, strike that.

If you are correct, why did the doctor

Page 81

mention loose weave in regards to particles that you see in your specimen?

MR. ZIMMERMAN: Objection, answer if you can.

THE DEPONENT: I'm not sure what he meant. We would have to ask him. I can say that he noticed that it was fragmented easily, so he had some difficulty excising it in one piece, and there was extra manipulations in the area.

BY MR. SNOWDEN:

Q. And how did you rule out, if you did, the -- whether what the surgeon was referring to was the mesh coming out in pieces?

A. Well I can only say what is in the records, and the record clearly states "fragmented".

Q. Okay. And is fragmented also consistent with mesh coming out in four pieces?

A. You would have to ask the explanting surgeon.

Q. Okay. You didn't care to read the deposition of that doctor in this case, correct?

MR. ZIMMERMAN: Objection.

THE DEPONENT: This is not correct that I did not care. I do not read depositions for any of

Page 82

the cases at least for Wave 1. I read depositions only in very rare occasions where there is significant discrepancy between the records and I need to clarify which record is correct.

BY MR. SNOWDEN:

Q. I'm handing you what is marked as Stubblefield 6.

EXHIBIT NO. 6: Surgical Pathology Report reported on 2007/01/10

BY MR. SNOWDEN:

Q. Doctor, if you take a look at this surgical pathology report, is it your understanding this relates to the mesh removal from January 4th, 2007?

A. That's correct.

Q. Okay. And if we go down to the -- well first off, do you see any mention of particles in this pathology description?

A. There is no microscopy. There is only gross description.

Q. Would you need a microscope to see the particles?

A. Yes, of those particles I describe, they would not be visible without microscope.

Page 83

Q. Okay. So the doctor saw the fragments or particles during the surgery but the pathologist would need a microscope to see it?

A. I did not say that the doctor saw fragments. He said it was fragmented easily meaning that he had to do multiple cuts to remove the mesh or that he had difficulty removing it in one piece. That's what it means.

It does not specifically indicate that he could see the fragments which were produced during that procedure because, again, it's microscopic and it's in the tissue.

Q. So you would agree with me then that the statement that the mesh, because of its loose weave, fragmented easily is consistent with the pathology report showing the mesh was removed in four pieces?

A. Yes, it is.

Q. Okay.

A. It is. So he could not remove it in one piece. He had to do several smaller excisions because it was fragmented. So there was more manipulations in the area.

Q. Okay.

Page 84

A. And wasn't as strong.

Q. So what the doctor on January 4th, 2007, when he was explanting the mesh and he said this material, because of its loose weave, fragmented easily, it's your testimony and your opinion he wasn't identifying the particles you see under the microscope?

A. That is correct, he wouldn't be able to see it. But the fact is that the excision was piecemeal. There were multiple cuts and more manipulations describes higher risk for fragmentation at microscopic level.

Q. Okay. And this pathology report, does it mention the mesh being deformed?

A. There is no description of the configuration of the mesh either way, if it's deformed or flat.

Q. In your opinion regarding pain starting on page 12, you have on the third paragraph in that section:

"There was a foreign body type inflammatory reaction to the mesh. Additionally, the mesh fragmented at one point and introduced collections of smaller particles."

Page 85

Do you see that?

A. I do.

Q. You say, "The latter amplified the burden of foreign body reaction in the tissue." Do you see that?

A. I do.

Q. What role, if any, did the collection of particles play in the pain that Ms. Stubblefield experienced?

A. As with all other features, we shouldn't single out one feature and try to connect it to a specific symptom. This was all happening at the same time in the same mesh. It definitely didn't reduce the amount of changes. The additional particles increased the amount of foreign body reaction, so they amplified already abnormal finding.

Q. How large was the field of particles -- strike that. Were the particles all in one area in the specimen?

A. No. As far as my recollection, there were several fossa of these particles.

Q. And how large was the area where the particles were located?

A. I did not measure it. If I had the

Page 86

slides, I would point where the areas are.
Q. How significant was the tissue reaction to the particles that you saw?
A. It was quite significant. There was detectable foreign-body type reaction. We can see it in the images. If we go to, for example, page 37, you can see several macrophages in the area.
Q. 100X objective, is that equivalent to a thousand times magnification?
A. That's correct.
Q. Every picture you have of the particles in your report is that a thousand times magnification?
A. It is.
Q. Okay. So you are not able to, sitting here today with your report that you have provided in this case, show us a picture that sort of shows the extent of any one of these particle fields?
A. Not required. Wouldn't contribute either way.
Q. I'm just trying to figure out how large it is. It sounds like I'm not going to be able to do today.
A. Well, it wasn't my purpose to

Page 87

measure it. If, when you ship the slides back to me, I would be able to show the areas and measure them, but I mean since it wasn't my purpose, I did not do it when I had the slides.
Q. Off the record.
-- OFF THE RECORD AT 10:49 --
-- RESUMING AT 10:52 --
BY MR. SNOWDEN:
Q. Dr. Iakovlev, are you aware -- strike that. Is it important to your opinion in this -- well, strike that.
Do you have any opinions in this case regarding when Ms. Stubblefield's pain, that's attributed to mesh, began?
A. This question is best answered going through the records. So there is -- if we go into the records and implantation is February 2005, and then in March of 2005, which is a postoperative period, there is a description of pain with some movement "otherwise healed well." So it's not clear if that pain was related to the surgery or to the mesh but there is an entry there.
And then in April, which is almost three months after surgery, there is a description of

Page 88

bilateral groin pain. Again, it's not clear what it is attributed to. And then in 2000 -- again in 2005 in July, low back pain and suprapubic tenderness, some description of pain, however, there is no firm conclusion yet at the time that the pain is related to the mesh.
And then later on in July 2005, it says pain in the mesh area.
So about five months after implantation examination showed or connected pain with the mesh.
EXHIBIT NO. 7: Progress Notes, dated 3/18/05 to 7/8/05
BY MR. SNOWDEN:
Q. All right. I'm handing you what has been marked as Stubblefield 7.
And if you look on the left-hand side, it says 3/18/05. Does this correlate with your entry on page 2 for March 18th, 2005?
A. Yes.
Q. All right. And I'm just trying to figure out this record here. It says, there's a urinalysis section and just below that it says, "Having a little leakage." Do you see that?
A. Uhm-hmm.

Page 89

Q. What's that -- what is that next -- on the next line, what does that say?
A. "P with some movement."
Q. Okay. What's that P mean?
A. Pain. I think I've seen it in -- in other records. So I interpreted it as pain.
Q. Okay. Is that a common medical abbreviation for -- P for pain?
A. Sometimes it's used.
Q. Okay. And -- okay. And then the next line says, "Well healed otherwise," right?
A. Yes.
Q. I'm done with that one. You can put it aside.
Do you know -- do you have an opinion in this case regarding whether, if at all, Ms. Stubblefield's pain changed throughout the course of her treatment?
MR. ZIMMERMAN: Objection, form. Answer if you can.
THE DEPONENT: Well, the pain is changing because of the treatments. We can see that, for example, October, 2007, on page 5, she does not -- some residual pain on anterior side where she had the

Page 90

mesh implant. So it indicates that at that time there is residual pain or there is some reduction of the pain after nerve blocks.

So at least at that time there was a change in the pain.

BY MR. SNOWDEN:

Q. Okay. Any other changes to the pain?

MR. ZIMMERMAN: Same objection. Answer if you can.

THE DEPONENT: So again another entry on page 7, March 2011:

"She went for three years with constant bilateral groin, suprapubic, and vaginal pain which she describes as 'burning' like 'needles,' and 'jabbing pain'. She was treated by Dr. Zimmerman with excision of mesh and states that after the excision, the vaginal and midline pain went away. She is still stuck with the [bilateral lower quadrant] pain."

So the location changed after the excision. That's another change in the pattern of pain

Page 91

again, following treatment procedure.

Again another entry, June, 2011:

"67 year old female who presents for evaluation and management of pelvic pain. Patient was last seen by me a few months ago with the following diagnosis and treatment plan: Chronic neuropathic pain due to post-mesh pain syndrome. Partially relieved with nortriptyline, but patient could not tolerate it due to side effects."

So, again, there was improvement of pain on medication, but patient could not tolerate the medication.

But there is a change in pain, again, after treatment.

BY MR. SNOWDEN:

Q. What role, if any, did your evaluation of changes and complaints of pain have on your opinion?

A. It's not in my opinion, but I can see the pattern in the records that if there is a specific treatment in relation to mesh, there is a change of symptoms. So I can see that the clinicians

Page 92

are working up their differential diagnosis. They make decision to excise mesh or to treat with specific interventions like nerve blocks, but especially excision of the mesh. If there is change of the symptoms after mesh excision, it just gives an extra evidence that symptoms pre-excision were caused by the mesh. Because the mesh was excised, symptoms were relieved, therefore, symptoms before the excision were caused by the mesh.

Q. Does it matter to your differential diagnosis in this case -- strike that.

Would it be important to your differential diagnosis in this case to know that the plaintiff later reported to healthcare providers that the surgeries had not addressed her pain?

MR. ZIMMERMAN: Objection. Answer if you can.

THE DEPONENT: As I said, I'm not doing clinical differential diagnosis. I just see what is in the records. I'm doing my morphological differential diagnosis.

BY MR. SNOWDEN:

Q. What's the difference between a clinical differential diagnosis and a morphological

Page 93

differential diagnosis?

A. Clinical differential diagnosis is being worked up by clinical investigations, by taking history, by examining the patient, doing some tests, radiological or imaging studies. Morphological differential diagnosis is determining what is abnormal in the excised tissue.

If clinical differential diagnosis narrows the cause of specific symptoms to specific area and then it's being excised, I can look at the tissue in the microscope and I can say what is abnormal in the tissue. So then I can differentiate, is it natural disease like a tumor? Is it a foreign body? And what are the changes related to the foreign body? And then I can complete the diagnostic process which started with clinical differential diagnosis.

Q. On page 12 of your report under the pain section, the first paragraph you end with "There was a relief of symptoms after mesh excision." Do you see that?

A. Yes.

Q. Is it important to your clinico-pathologic correlation in this case that there was a relief of symptoms after mesh excision?

Page 94

A. It's not required. And this is an extra or additional information in the clinical records.
Q. Are you relying on that fact in your opinion in this case?
A. No. I'm relying on the fact that clinical differential diagnosis lead to mesh excision, and then my examination of the specimen when, when it was removed or what was abnormal in the tissue at the time of removal. And what I see in the tissue is presence of the mesh and tissue reaction to the mesh.
Q. Were you provided with records from Therapy Works in Winchester, Tennessee, where Ms. Stubblefield reported that her surgeries have not helped and was told that there was nothing else they could do for her, in October of 2011?
A. What provider?
Q. Therapy Works.
A. I don't remember exact all the records by heart. If it's on the thumb drive, I was provided. If it's not there, then I did not have them.
Q. In any event, sounds like that would not have been important to your opinion in this case.

Page 95

MR. ZIMMERMAN: Objection.
THE DEPONENT: Just copy what is in the clinical records. At the end of the day the decision was to excise the mesh.
BY MR. SNOWDEN:
Q. During the procedure on September 23rd, 2009, was the -- and that's the specimen you have that relates to that procedure, correct?
A. Yes.
Q. Was the mesh the only thing removed that day from Ms. Stubblefield?
A. There were several fragments of mesh removed at that time together with the tissue.
Q. Okay.
EXHIBIT NO. 8: Urology Gynecology Operative Report 2009/09/23
BY MR. SNOWDEN:
Q. I'm handing you what is marked as Stubblefield 8. And if you look at the top, you'll see "Urology Gynecology Operative Report" 2000 -- well, September 23rd, 2009. Do you see that?
A. I do.
Q. Okay. And do you understand this

Page 96

is the operative report from the mesh removal surgery on that date?
A. Yes.
Q. Okay. And if we go down to the last paragraph in the -- on this first page, it mentions that, "A permanent suture was palpated on the left side of the fascia penetrating the muscle and the fascia." Do you see that?
A. Yes, I do.
Q. And then it says that "The suture was attached to a remnant of the TVT mesh." Do you see that?
A. I do.
Q. And we know what they mean there is actually the Prolene soft that turned into a sling?
A. Yes.
Q. Okay. Then it continues and it says:
"A second suture was located on the right side of the fascia and the dissection was carried out similarly."
Do you see that?
A. Sorry. I'm so tired, I barely can see.

Page 97

Q. I skipped a sentence about removing the mesh just so I could focus on the suture. So it continues, "The mesh was carefully dissected." Do you see that sentence?
A. Which line from the bottom?
Q. We are -- the line I want to look at is three lines up from the bottom.
And it -- there's a line before it that says the mesh was removed intact. Do you see that?
A. Yes, I do.
Q. The next is, "A second suture was located on the right side of the fascia and the dissection was carried out similarly."
Do you see that?
A. I do.
Q. Do you understand these to be the tensioning sutures that -- strike that.
Do you understand these to be the sutures found in your gross specimen pictures MS1?
A. I don't know if those were the only sutures and if there was any additional sutures for traction.
Q. Okay.
A. I mean some of it is likely to be

Page 98

the sutures. If it is the only sutures, if there was an additional suture, I cannot say.

Q. And those sutures penetrated the muscle and the fascia?

A. So second suture was on the right side of the fascia.

Q. Uhm-hmm.

A. Does not say that it penetrated.

Q. And the first suture, which was the first sentence I read when we got on to this, it says, "A permanent suture was palpated on the left side of the fascia penetrating the muscle and the fascia." Do you see that?

A. Yes, I do.

Q. Okay. Did you consider the removal of these sutures and their placement through fascia and muscle when coming to your clinico-pathologic correlation regarding pain in this case?

A. So if we go through the records, July, 2005, pain in the mesh area. Then November 2005 pain in the mesh area. Then again, pain is associated with the mesh itself in October 2007, residual pain on the anterior side where she had the mesh implant.

Q. October 2007 you would agree she

Page 99

still had the sutures that were removed two years later?

A. Yes, but the description of the clinician is that, in relation to the mesh not to the sutures.

Q. And would the sutures that were implanted as tensioning sutures necessarily be associated with the same area as the mesh?

A. They are somewhat away. Again, I'm not urogynecologist and I'm not explanting surgeon to tell exactly where they were. Volume-wise the suture is much smaller in terms of the mesh. Just give me one second.

So after the mesh excision, the midline pain went away. Again that specific pain in the middle where only the mesh was, no sutures went away.

Q. Which record are you reading from?

A. March 2011.

Q. So the tensioning sutures were not in the midline?

A. No.

Q. So in this case, did you rule out the sutures as the -- as a cause of pelvic or vaginal pain for Ms. Stubblefield?

Page 100

A. Well, I can see that, first of all, the clinical descriptions are connecting pain with the mesh itself, the mesh is being taken out, and initial excision of the mesh in the middle portion alleviated the symptoms or changed the pattern of symptoms. Again, at that time sutures were not removed, only the mesh was removed. And there was a change in pain.

And when I examined the mesh microscopically, it provides much larger volume of the foreign material. The extent of tissue damage is much larger than what we see with the sutures, creates larger scar plate that attaches to larger area of tissues on its way.

Q. Is it your opinion that Dr. Zimmerman, when he was completing his differential diagnosis, settled on the mesh itself and not the suture?

A. The initial excision wasn't anywhere close to the sutures. The initial excision was in the mid-portion.

Q. When coming to your -- or when undertaking your clinical pathologic correlation in this case, did you consider what role, if any, Ms. Stubblefield's use of pain medications and

Page 101

narcotics played on her pain symptoms?

A. No. This would be a clinical question.

Q. So you didn't consider that in September 2011, Ms. Stubblefield had a narcotics overdose resulting in detoxification where she realized she did not need the narcotic medications because she really did not experience any pain at all despite not being on any pain medications at all for four days and she realized she can live without pain medications?

MR. ZIMMERMAN: Objections. Already asked and answered. Answer if you can.

THE DEPONENT: It's beyond my scope. It's a clinical information.

BY MR. SNOWDEN:

Q. Go off the record for just a moment.

-- OFF-THE-RECORD DISCUSSION --

BY MR. SNOWDEN:

Q. Dr. Iakovlev, would you agree that nerve entrapment can lead to numbness?

A. It can.

Q. Okay. I'll reserve the remainder of my time. Thank you.

EXAMINATION BY MR. ZIMMERMAN:

Q. Good evening, Doctor.

A. Good evening.

Q. I just have a few questions for you. I am going to introduce myself for the record. My name is Christopher Zimmerman and I'm here on behalf of the plaintiff. And I just have a couple questions.

Doctor, it's true that you reached several opinions in this case, correct?

A. Yes.

Q. And those opinions are in summary form described in the expert report marked as Exhibit 1?

A. Yes.

Q. And did you reach those opinions based on your education, skill, and expertise?

A. Yes.

Q. And do you hold those opinions to a reasonable degree of medical certainty?

A. Yes, I do.

Q. And I know you were asked over the last three hours many questions regarding Ms. Stubblefield. Have any of the questions posed to you today or any of the answers you have given changed

any of the opinions that you have already expressed in your report?

A. No.

MR. ZIMMERMAN: Those are all the questions. I have at this point.

BY MR. ZIMMERMAN:

Q. Dr. Iakovlev, thank you, and I hope this process of 35 depositions wasn't too painful for you.

-- Whereupon the deposition concluded at 11:30 p.m.

REPORTER'S CERTIFICATE

I, TERRY WOOD, RPR, CSR, Certified Shorthand Reporter, certify;

That the foregoing proceedings were taken before me at the time and place therein set forth, at which time the witness was put under oath by me;

That the testimony of the witness and all objections made at the time of the examination were recorded stenographically by me and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken.

_____

PER: TERRY WOOD, RPR, CSR

REAL-TIME REPORTER

DEPOSITION ERRATA SHEET

Case Caption: IN RE: ETHICON, INC., PELVIC REPAIR SYSTEM PRODUCTS LIABILITY LITIGATION

DECLARATION UNDER PENALTY OF PERJURY

I declare under penalty of perjury that I have read the entire transcript of my deposition taken in the captioned matter or the same has been read to me, and the same is true and accurate, save and except for changes and/or corrections, if any, as indicated by me on the DEPOSITION ERRATA SHEET hereof, with the understanding that I offer these changes as if still under oath.

Signed on the _____ day of _____, 2016.

_____.

VLADIMIR IAKOVLEV, M.D.

DEPOSITION ERRATA SHEET

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